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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/885,315	06/18/2001	Shinichi Hayashi	FUJI 18.659	4585

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EXAMINER

SHINGLES, KRISTIE D

ART UNIT PAPER NUMBER

2141

DATE MAILED: 12/08/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 09/885,315	Applicant(s) HAYASHI ET AL.	
	Examiner Kristie Shingles	Art Unit 2141	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) Responsive to communication(s) filed on 20 September 2005.
- 2a) This action is FINAL.
- 2b) This action is non-final.
- 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) Claim(s) 1-20 is/are pending in the application.
 - 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) Claim(s) _____ is/are allowed.
- 6) Claim(s) 1-20 is/are rejected.
- 7) Claim(s) _____ is/are objected to.
- 8) Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) The specification is objected to by the Examiner.
- 10) The drawing(s) filed on _____ is/are: a) accepted or b) objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) All b) Some * c) None of:
 - 1. Certified copies of the priority documents have been received.
 - 2. Certified copies of the priority documents have been received in Application No. _____.
 - 3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) Notice of References Cited (PTO-892)
- 2) Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
 Paper No(s)/Mail Date _____
- 4) Interview Summary (PTO-413)
 Paper No(s)/Mail Date. _____
- 5) Notice of Informal Patent Application (PTO-152)
- 6) Other: _____

DETAILED ACTION

Per Applicant's Request for Continued Examination:

*Claims 1, 9 and 19 have been amended. Claim 20 is new.
Claims 1-20 are pending.*

Continued Examination Under 37 CFR 1.114

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 9/20/2005 has been entered.

Response to Arguments

2. Applicant's arguments with respect to claims 1, 9 and 19 have been considered but are moot in view of the new ground(s) of rejection.

Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless --

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for

Art Unit: 2141

patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

4. **Claims 1, 2, 5, 9, 12, 19 and 20** are rejected under 35 U.S.C. 102(e) as being anticipated by *Buyukkoc et al* (USPN 6,452,902).

a. **Per claim 1, *Buyukkoc et al*** teach a traffic engineering method of a network divided into a plurality of areas, each area including a plurality of nodes, said method comprising the step of carrying out a load-balancing process at a boundary node in said each area in a closed manner (Abstract, col.6 lines 8-22, col.7 lines 14-23, col.8 lines 56-59; provision for load-balancing at edge nodes).

b. **Claims 9, 19 and 20** contain limitations substantially equivalent to claim 1, and are therefore rejected under the same basis.

c. **Per claim 2, *Buyukkoc et al*** teach the traffic engineering method as claimed in claim 1, further comprising the step of deciding a destination of a packet in said each area (col.3 line 54-col.4 line 62, col.6 lines 8-33).

d. **Per claim 5, *Buyukkoc et al*** teach the traffic engineering method as claimed in claim 1, further comprising the step of notifying a closest node apparatus that carries out the load-balancing process and is the closest to said node apparatus on an upstream side of said node apparatus, about a failure if detecting the failure (col.8 lines 1-19, col.9 lines 5-24).

e. **Claim 12** contains limitations substantially equivalent to claim 5, and is therefore rejected under the same basis.

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. **Claims 3, 4, 6-8, 10, 11, and 13-18** are rejected under 35 U.S.C. 103(a) as being unpatentable over *Buyukkoc et al* (USPN 6,452,902) in view of *Rochberger* (USPN 5,940,396).

a. **Per claim 3**, *Buyukkoc et al* teach the traffic engineering method as claimed in claim 1, yet fail to explicitly teach the traffic engineering method further comprising the steps of: calculating a normalized value used for the load-balancing process, based on address information of the packet supplied to an ingress node of the network from an outside of the network; adding said normalized value to switching information of said packet; and forwarding said packet from said ingress node to the plurality of nodes. However, *Rochberger* teaches that each node is assigned a specific significant length associated to address prefix which is used for making routing decisions, i.e. forwarding the packet from a source node to a destination node of the network (col.7 line 41-col.9 line 12).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teachings *Buyukkoc et al* and *Rochberger* for implementing a technique useful for load-balancing and routing the packet, based on a value associated with the packet's address information, because they provides the system with a way of tracking how many packet's are destined for a specific node on a particular path. It is obvious that this

Art Unit: 2141

information would be relative and relevant to the load-balancing of the edge nodes in the network.

b. **Claim 10** contains limitations substantially equivalent to claim 3, and is therefore rejected under the same basis.

c. **Per claim 4**, *Rochberger* teaches the traffic engineering method as claimed in claim 3, further comprising the steps of: receiving said packet from said ingress node at an area boundary node located on a boundary of the plurality of areas; and extracting said normalized value used for carrying out the load-balancing process in an area including said area boundary node, from the switching information of said packet (col.8 lines 7-63 and col.11 lines 7-21; upon communication between user nodes and network nodes, load-balancing is performed based on the match length of the packet—thus the match length is extracted and used for grouping in the array).

d. **Claim 11** contains limitations substantially equivalent to claim 4, and is therefore rejected under the same basis.

e. **Per claim 6**, *Buyukkoc et al* teach the traffic engineering method as claimed in claim 4, further comprising the step of redistributing a traffic flow from a failed route to a route other than the failed route if receiving a failure notification at said ingress node or said area boundary node (col.9 lines 5-12; *Rochberger*: Abstract, Figure 7, and col.11 lines 24-66).

f. **Claims 13 and 16** contain limitations substantially equivalent to claim 6, and are therefore rejected under the same basis.

g. **Per claim 7**, *Buyukkoc et al* and *Rochberger* teach the traffic engineering method as claimed in claim 6, *Buyukkoc et al* further teach the traffic engineering method further

Art Unit: 2141

comprising the step of deciding whether a traffic loss occurs by redistributing the traffic flow from said failed route to the route other than said failed route if receiving the failure notification at said ingress node or said area boundary node (col.9 lines 5-12).

h. **Claims 14 and 17** contain limitations substantially equivalent to claim 7, and are therefore rejected under the same basis.

i. **Per claim 8**, *Buyukkoc et al* teach the traffic engineering method as claimed in claim 7, further comprising the steps of: setting a new route, if said failure-notification receiving unit decides that the traffic loss occurs by redistributing the traffic flow from said failed route to the route other than said failed route; and switching the traffic flow from said failed route to the new route (col.9 lines 5-12).

j. **Claims 15 and 18** contain limitations substantially equivalent to claim 8, and are therefore rejected under the same basis.

Conclusion

7. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure: *Basso et al* (USPN 6,690,678), *Meempat et al* (USPN 6,904,017), *Buyukkoc et al* (USPN 6,463,062), *Ibe et al* (USPN 6,437,804).

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kristie Shingles whose telephone number is 571-272-3888. The examiner can normally be reached on Monday-Friday 8:30-6:00pm.

Art Unit: 2141

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Rupal Dharia can be reached on 571-272-3880. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Kristie Shingles
Examiner
Art Unit 2141

kds


RUPAL DHARIA
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